

## **United States Department of the Interior**



## FISH AND WILDLIFE SERVICE Red Bluff Fish & Wildlife Office 10950 Tyler Road, Red Bluff, California 96080 (530) 527-3043, FAX (530) 529-0292

September 10, 2012

To: Interested Parties

From: Felipe Carrillo, Supervisory Fish Biologist, Red Bluff Fish and Wildlife Office

Subject: Biweekly report (August 26, 2012 - September 8, 2012)

Please find attached preliminary daily estimates of passage, 90% confidence intervals, and fork length ranges of juvenile salmonids sampled at Red Bluff Diversion Dam for the period August 26, 2012 through September 8, 2012. Race designation was assigned using length-at-date criteria.

This report also contains graphical displays of salmonid passage dating back to 2005 for comparison.

Please note that data contained in these reports is subject to revision as this data is preliminary and undergoing QA/QC procedures.

If you have any questions, please feel free to contact me at (530) 527-3043 ext 246

Table 1.— Preliminary estimates of passage by brood-year (BY) and run for unmarked juvenile Chinook salmon and steelhead trout captured by rotary-screw traps at Red Bluff Diversion Dam (RK391), Sacramento River, CA, for the dates listed below. Results include estimated passage, peak river discharge volume, water temperature, turbidity, and fork length (mm) range in parentheses. A dash (-) indicates that sampling was not conducted on that date.

				Estimated passage				
Date	Discharge volume (cfs) <sup>1</sup>	Water temperature (°C)	Water turbidity (NTU)	BY12 Winter	BY11 Spring	BY11 Fall	BY12 Late-Fall	BY12 RBT
8/26/2012	11,400	13.6	1.3	1,172 (30 – 36)	0(-)	234 (89 – 102)	176 (86 – 87)	1,232 (27 – 77)
8/27/2012	10,900	13.5	1.5	808 (33 – 37)	0(-)	281 (95 – 119)	168 (65 – 80)	1,526 (44 – 141)
8/28/2012	10,900	13.4	1.7	470 (29 – 36)	0 ( - )	437 (90 – 119)	173 (61 – 88)	2,580 (48 – 79)
8/29/2012	10,800	13.3	1.5	1,032 (31 – 37)	0 ( - )	217 (92 – 127)	163 (56 – 86)	1,305 (44 – 88)
8/30/2012	10,700	13.4	1.3	1,025 (32 – 38)	0 ( - )	227 (91 – 106)	169 (53 – 74)	1,420 (45 – 93)
8/31/2012	10,300	13.6	1.3	707 (32 – 39)	0 ( - )	165 (91 – 103)	166 (82 – 88)	1,044 (49 – 103)
9/1/2012	10,300	13.7	1.3	846 (31 – 37)	0 ( - )	105 (103 – 108)	0(-)	846 (48 – 99)
9/2/2012	10,400	13.4	1.3	761 (32 – 36)	0 ( - )	54 (113)	109 (86 – 87)	815 (46 – 97)
9/3/2012	10,400	13.7	1.1	1,374 (30 – 37)	0(-)	0(-)	55 (69)	661 (52 – 96)
9/4/2012	10,300	13.7	1.2	1,426 (31 – 38)	0 ( - )	113 (100 – 122)	172 (81 – 90)	906 (54 – 75)
9/5/2012	9,900	13.7	1.3	2,959 (31 – 37)	0 ( - )	0(-)	0 ( - )	1,295 (40 – 68)
9/6/2012	9,820	14.1	1.2	3,269 (32 – 40)	0 ( - )	54 (95)	107 (67 – 91)	1,769 (43 – 102)
9/7/2012	9,420	14.2	1.0	4,213 (31 – 39)	0 ( - )	238 (95 – 115)	67 (76 – 93)	1,539 (45 – 78)
9/8/2012	9,290	14.4	1.3	5,324 (30 – 38)	0 ( - )	38 (112)	197 (82 – 94)	1,390 (44 – 77)
Biweekly Total <sup>2</sup>				25,386	0	2,163	1,722	18,328
Biweekly Lower 90% Confidence Interval				17,931	0	1,009	720	12,296
Biweekly Upper 90% Confidence Interval				32,841	0	3,317	2,724	24,360
Brood Year Total				44,165	181,008	6,035,251	85,920	116,102
Brood year Lower 90% Confidence Interval				27,808	96,279	3,409,472	2,189	68,072
Brood year Upper 90% Confidence Interval				60,522	265,737	8,661,030	169,651	164,132

<sup>&</sup>lt;sup>1</sup> Peak daily discharge values do not account for diversions at RBDD and only represent peak flows registered at the Bend Bridge Gauging station (<a href="http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd">http://cdec2.water.ca.gov/cgi-progs/queryFx?bnd</a>).

<sup>&</sup>lt;sup>2</sup> Biweekly totals may be greater than the sum of the daily estimates presented in this table if sampling was not conducted on each day of the biweekly period. A dash (-) denotes those dates. To estimate daily passage for days that were not sampled, we impute missed sample days with the weekly mean value of days sampled within the week.

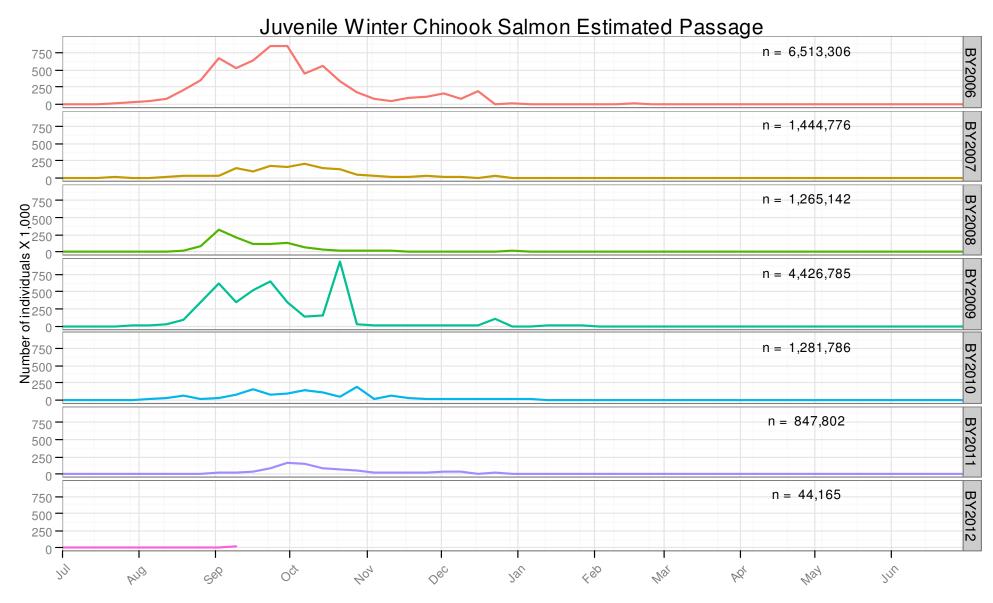


Figure 1. Weekly estimated passage of juvenile winter Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period July 1 2006 to present.

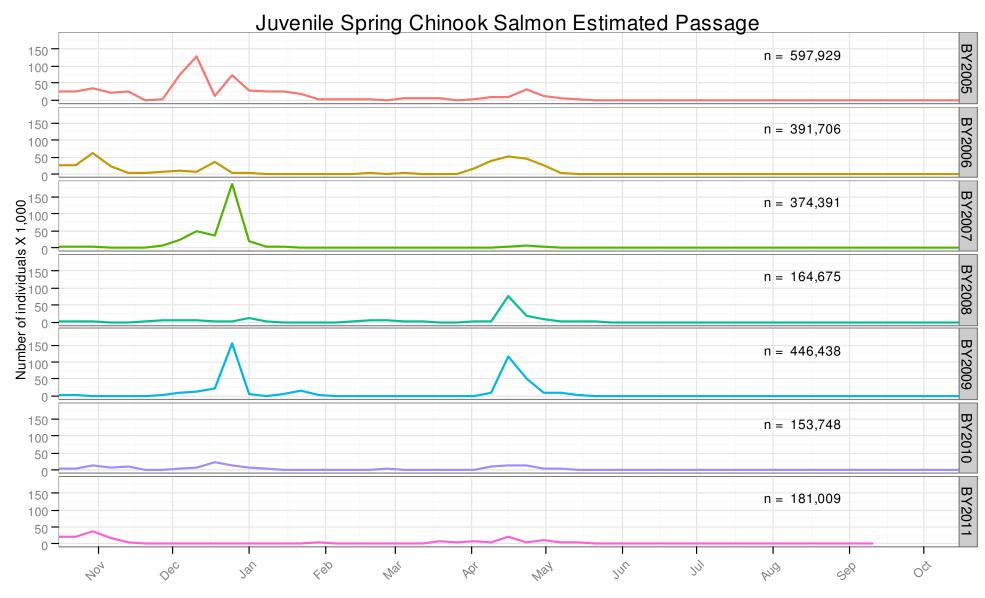


Figure 2. Weekly estimated passage of juvenile Spring Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period October 16 2005 to present.

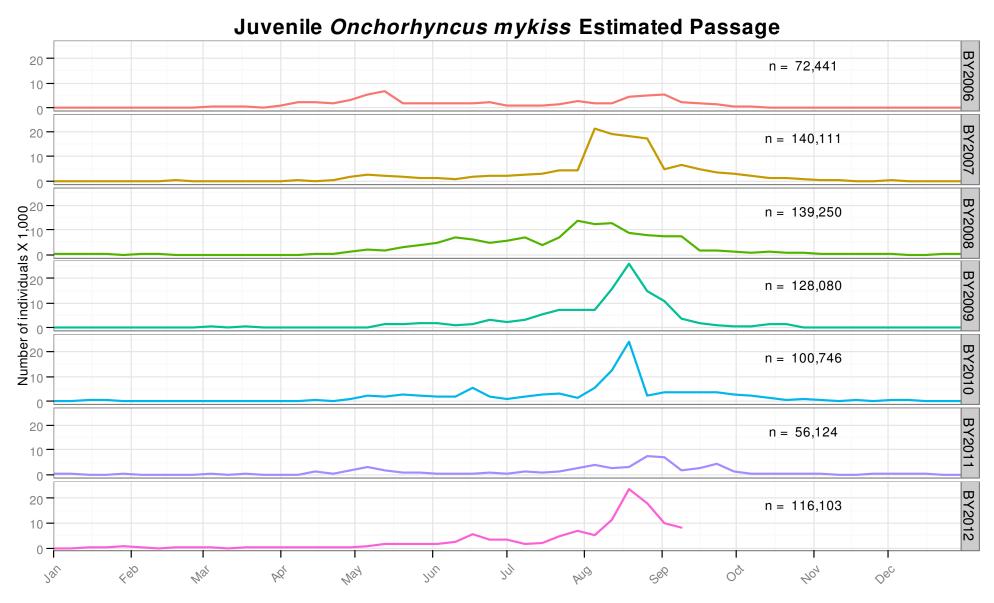


Figure 3. Weekly estimated passage of juvenile Rainbow/Steelhead trout at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period January 1 2006 to present.

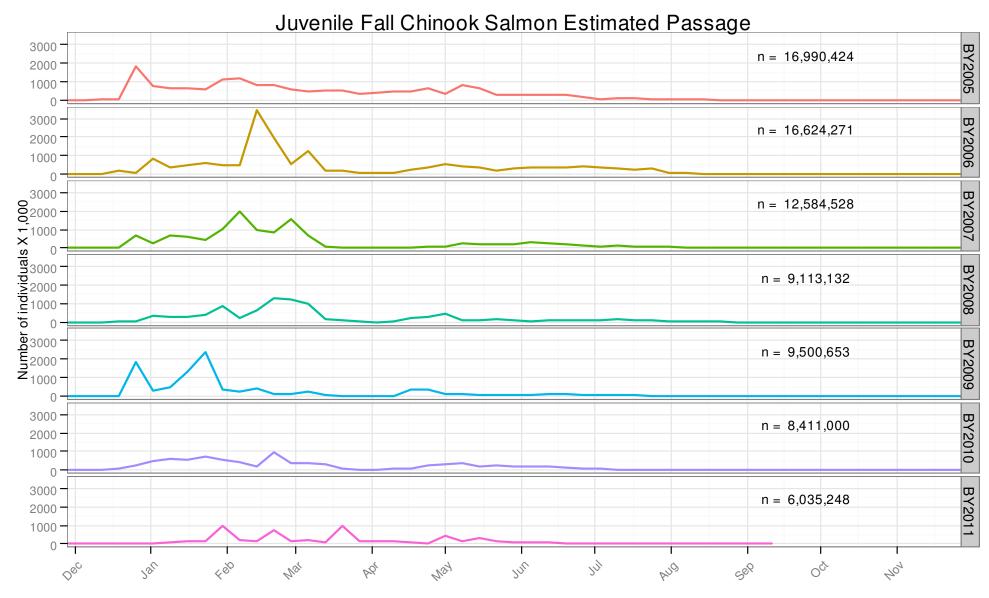


Figure 4. Weekly estimated passage of juvenile Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period December 1 2005 to present.

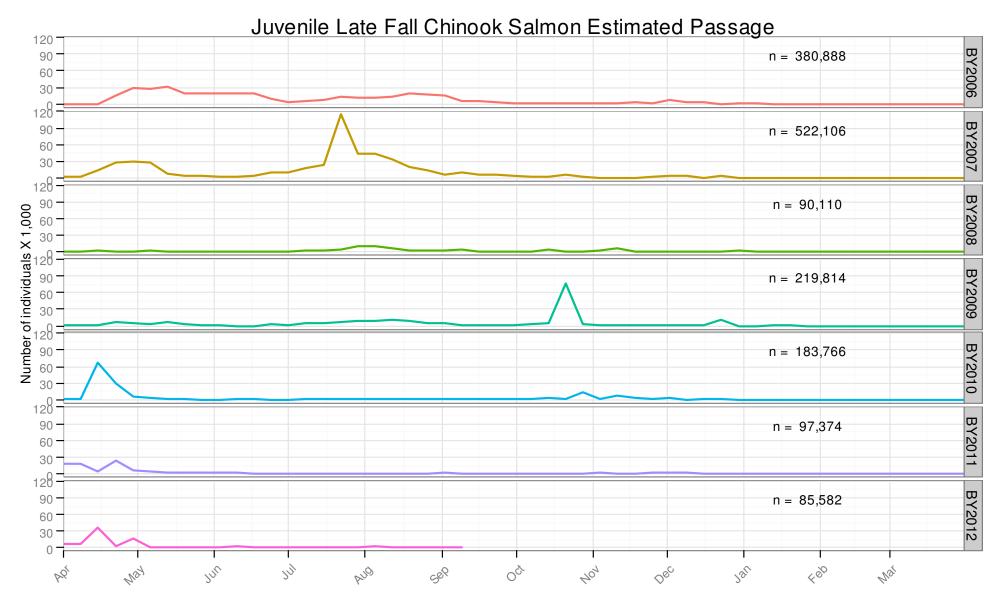


Figure 5. Weekly estimated passage of juvenile Late Fall Chinook Salmon at Red Bluff Diversion Dam (RK391), by brood-year (BY). Fish were sampled using rotary-screw traps for the period April 1 2006 to present.

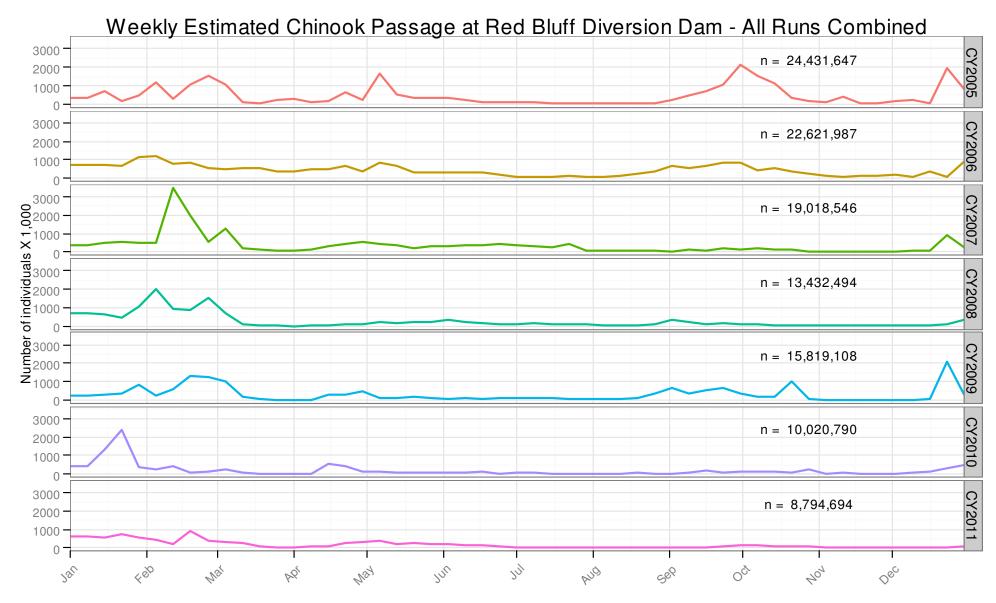


Figure 6. Weekly estimated passage of juvenile Chinook Salmon at Red Bluff Diversion Dam (RK391), by calendar year. Fish were sampled using rotary-screw traps for the period January 1 2005 to December 31 2011